

CLAIMS

WHAT IS CLAIMED IS:

1. An LED package, comprising:
5 an LED that emits excitation light;
an optically transparent body;
a layer of phosphor material positioned to receive the excitation light and
disposed on or in the optically transparent body, the phosphor material
emitting visible light when illuminated with the excitation light; and
10 a reflective polarizer layer disposed on or in the optically transparent body
positioned to receive the emitted visible light.
2. The LED package according to claim 1, wherein the LED is disposed within
the optically transparent body.
- 15 3. The LED package according to claim 1, wherein the LED is disposed adjacent
to the optically transparent body.
4. The LED package according to claim 1, wherein the reflective polarizer layer is
20 disposed on the optically transparent body.
5. The LED package according to claim 1, wherein the reflective polarizer layer is
disposed in the optically transparent body.
- 25 6. The LED package according to claim 1, further comprising a short pass
reflector disposed between the LED and the layer of phosphor material.
7. The LED package according to claim 1, further comprising a long pass
reflector disposed between the layer of phosphor material and the reflective polarizer.

8. The LED package according to claim 1, further comprising a short pass reflector disposed between the LED and the layer of phosphor material and a long pass reflector disposed between the layer of phosphor material and the reflective polarizer.

5

9. The LED package according to claim 6, wherein the short pass reflector comprises polymeric material.

10. The LED package according to claim 7, wherein the long pass reflector comprises polymeric material.

11. The LED package according to claim 6, wherein the short pass reflector is a non-planar short pass reflector.

15 12. The LED package according to claim 7, wherein the long pass reflector is a non-planar long pass reflector.

13. The LED package according to claim 1, wherein the reflective polarizer comprises cholesteric material.

20

14. The LED package according to claim 1, wherein the reflective polarizer comprises a multilayer polymeric material.

15. The LED package according to claim 1, wherein the reflective polarizer comprises a multilayer birefringent polymeric material.

25